Interreg
Baltic Sea Region

Co-funded by
the European Union

CIRCULAR ECONOMY
GlassCircle

Exploring full cycle circular economy for glass fibre industry

Riga | 25/09/2025
Liva Pupure

interreg-baltic.eu/project/glasscircle

Background

How it all came together:

During glass fibre manufacturing, as well as in many composite manufacturing processes a significant amount of residue material is generated.

Currently, a large amount of this residue glass fibres product is buried in a landfill

Background

How it all came together:

Part of this residue consists of relatively good-quality glass fibres or fabrics

This problem of glass fibre residue is common for many companies dealing with glass fibre or composite manufacturing – thus it would be more efficient to work together to solve this issue

GlassCircle

Objectives

The goal of the project: To create a **strong cluster** consisting of key players within the **glass fibres life cycle** (manufacturers, users, re-users, recyclers, etc.) within the Baltic Sea region

The project aims to **bring together** *industry*, *experts*, and *scientists*, as well as *public authorities* within the field – to **exchange knowledge** and **discuss the possible solutions** and **necessary next steps** for faster change from a linear to a circular economy within the glass fibre and composite industry.

Project consortium

Partners from Latvia, Sweden, Denmark

Project lead partner:

Riga Technical University (Latvia)

Contact person: Liva Pupure, Liva.Pupure@rtu.lv

Project partners:

Lulea University of Technology (Sweden)

Contact person: Roberts Joffe, Roberts.Joffe@ltu.se

Aarhus University (Denmark)

Contact person: Michail Beliatis, mibel@btech.au.dk

Podcomp AB (Sweden)

Hitachi Energy Sweden AB, Composites (HPAG) (Sweden)

Valmiera Municipality Government (Latvia)

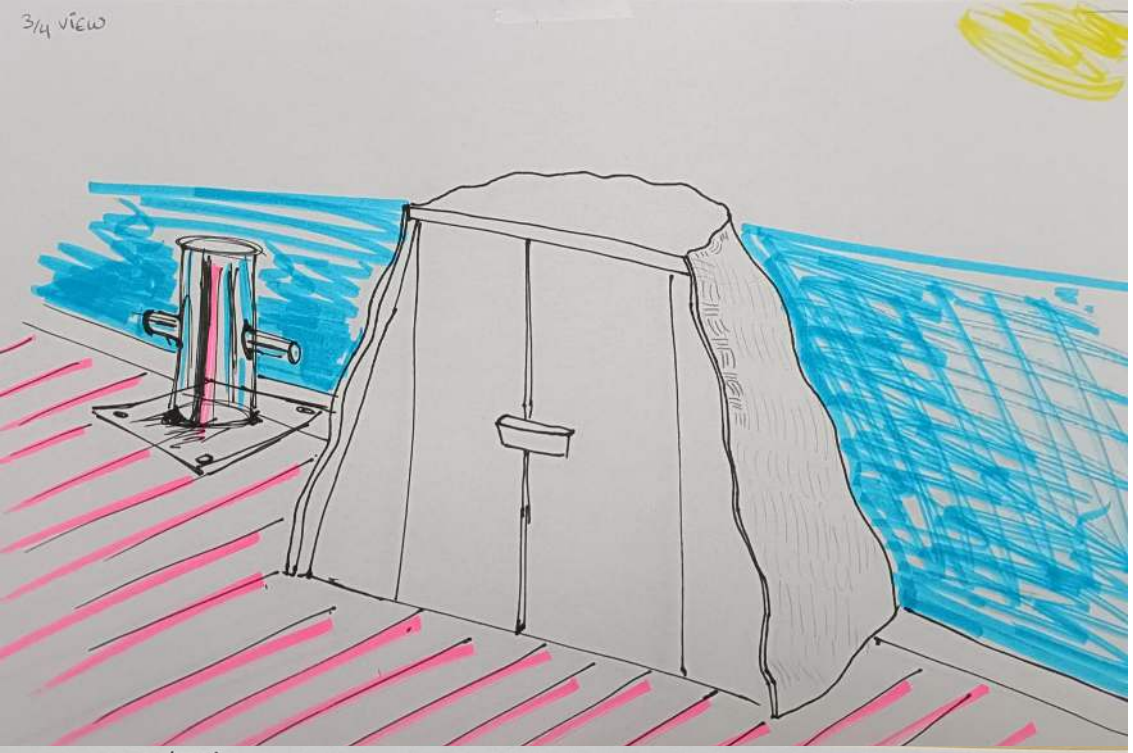
Passed activities

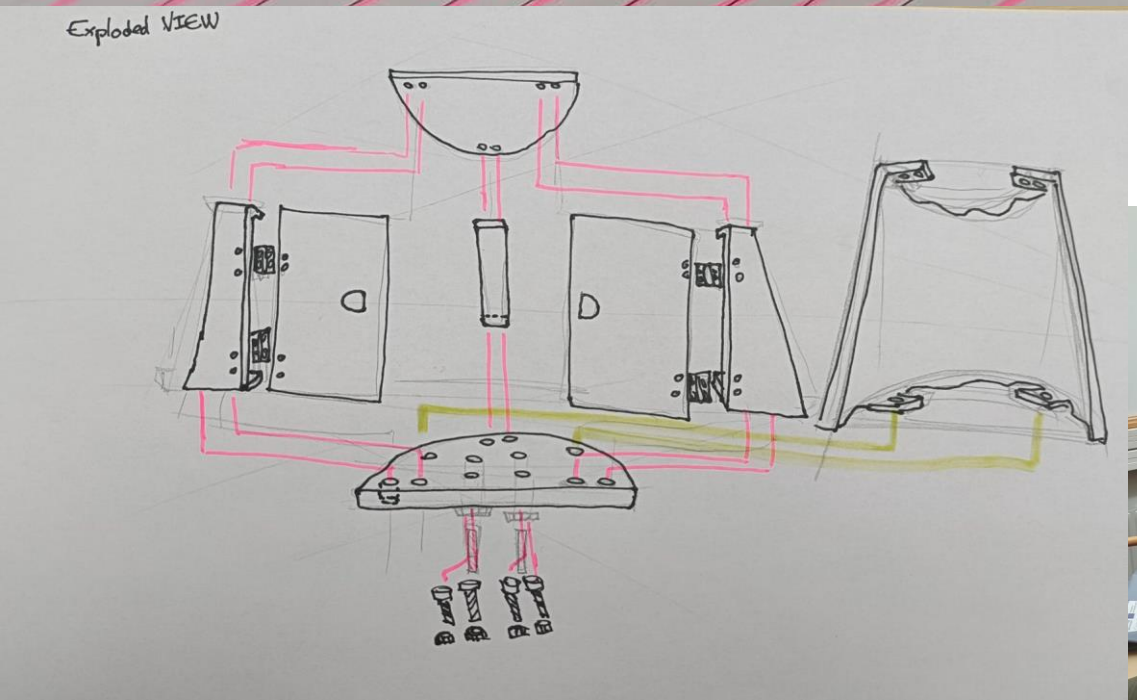
Hackathon «GlassCircle»

Hackathon «GlassCircle»

1. Participants from Latvia, Denmark and Sweden
2. Five new ideas generated
3. Student groups did excellent in the short time span they got.


WINNERS
AWARD
500€
VALMIERA GLASS
GROWTH
AWARD
250€
VALMIERA GLASS





Winners:

Team 2: Interior design or furniture elements with specific requirements: **Locker out of glass fibers – from marine industries residue.**

11:10 - 11:40

Giving boats manufacturing waste a new life and sailors more,

Augustine Hueso and Maria Bohic, Luleå University of Technology former students

Passed activities

14-15 September, 2023

Workshop on Environmental and economical feasibility to recover glass fibers

- LCA of glass fiber;
- Best practice stories from the industry

Register here (participation in the workshop is free of charge).

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CIRCULAR ECONOMY GlassCircle

WORKSHOP: 14-15 September 2023

Environmental and economical feasibility to recover glass fibers

The final program

Day 1 (14/9)		Day 2 (15/9)	
Welcome!	15.00	**Opening of Day-2**	08.55
Workshop's agenda, *Zainab Al-Maqdasi (LTU)*	15.15	**Glass fibers - strong but sensitive,** *Christina Scheffler (IPF)*	09.00
GlassCircle project, *Liva Pupure (RTU)*	15.30	**Role of recycling industry,** Martins Niklass *(ZAAO)*	09.30
Mapping glass fiber ecosystem for value creation thought circular use, *Student presentation (AU)*	16.00	**Industries: issues and solutions** - *Anders Holmberg (Hitachi)* - *Birgitha Nystrom (PodComp)* - *Martins Millers (Valmiera Glass)*	 09.50 10.10 10.30
Concluding remarks	16.30	***Break***	10.50
		Introduction to LCA, *Carmen Cristescu (SLU)*	11.10
Link for on-line participants: zoom https://aarhusuniversity.zoom.us/j/64855629034		**Waste mineral wool upcycled into alkali-activated facade panels and cobblestones with LCA,** *Barbara Horvat (ZAG)*	11.40
		Giving recycled fiberglass a new life in circular products, *Jakob W Nielsen (MILJØSKÆRM)*	12.10
		Break	12.30
		Discussion panel, *moderated by Z. Al-Maqdasi and R. Joffe (LTU)*	12.50
		Concluding remarks	13.50

Scan the QR code to access the event webpage

Passed activities

1 March, 2024

Co-Creation Workshop: Business Model Co-creation / Ideation for Digital Circular Economy in GlassFiber Large Scale Manufacturing

Agenda

Time	Item
10:00 - 11:45	• 10:00 – Opening of Day Project CircleGlass, Michail J. Beliatis (AU-BTECH) • 10:10 – Inspirational case: The ecosystem of the glass fiber industry and tools for promoting the transition to a circular economy, Līga Bieziņa (Valmiera municipality) • 10:25 – Kuusakoski Recycling – Circular economy solution for wind blades, Anu Söderena (Kuusakoski Oy) • 10:35 – Project EPICENTER Industry LCA cases for young professionals, Laura Vītola (RTU) • 10:40 – Inspirational case: Glassfiber cutting machines for recycling, Pavel Chvojka (Advantis) • 10:50 – EoLO-HUBs: Circular Business Models and knowledge sharing regarding wind turbine blades Nina Vielen-Kallio (echt) • 11:00 – Project DigiGlass Inspiration business case, digital systems for GF sorting challenge, Michail J. Beliatis (AU-DIGIT) • 11:10 – Co-Creation / Ideation & Discussion panel, moderated by Justina & Michail (AU) • 11:30 – Concluding remarks & feedback

Survey of General public

2023-2024

Survey of communities about the circularity of glass fibre

1. Important information about society's view of glass fibre and its circularity will be obtained;
2. This will also be a way to ask the larger society about their needs since they represent the product end-users
3. Awareness raising of the glass fibre residue waste issue in the larger society

12:40 - 13:10

Results of survey about glass fiber residue of general public,

Liga Biezina, Valmiera municipality

Database «GlassCircle cluster» and success story

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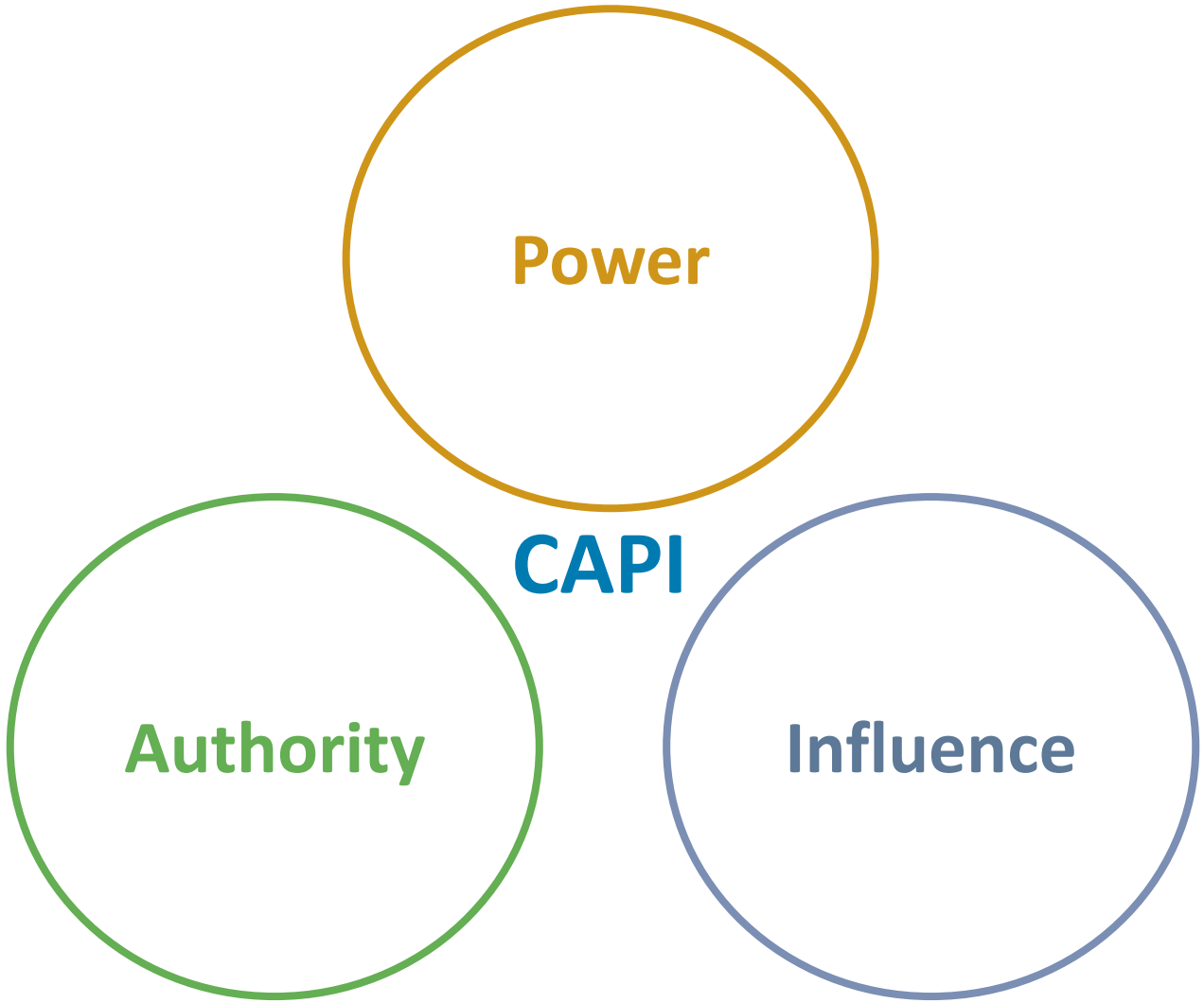
GlassCircle

Interested in joining our database?

Liva (RTU, Latvia): Liva.Pupure@rtu.lv
Roberts (LTU, Sweden): Roberts.Joffe@ltu.se
Michail (Aarhus, Denmark): mibel@btech.au.dk

What is needed to implement change



CAPI - Coalesced Authority, Power and Influence

Baltic Sea Region

the European Union

FINAL CONFERENCE

CIRCULAR ECONOMY
GlassCircle

EXPLORING FULL CYCLE CIRCULAR ECONOMY FOR GLASS FIBER INDUSTRY

EVENT AGENDA

CERTIFICATE OF ATTENDANCE

SEPTEMBER 26, 2024

MOON Conference Hall, RTU, Address: Kīpsalas iela 6A-268

All times are in UTC+3 (Riga Time)

08:30	Registration & welcome coffee
09:00	Opening ceremony - introduction to GlassCircle
09:20	Glass fiber circular economy use cases from nordic manufacturing industry, Michail Berliatis, Aarhus University
09:50	LCA as a good practical tool for environmental impact assessment, Viktoria Voronova, Tallin University of Technology
10:20	Strategic framework: reusable dishes and public events in Tallinn, Liina Kanarbik, Tallin municipality
10:50	Coffee break
11:10	From Hackathon to work in industry, Augustine Hueso and Maria Bohic, Luleå University of Technology former students
11:40	Tire and textile sorting in Latvia: reuse and recycling pacticie, Uldis Skrebs, AJ power
12:10	Waste management challenges with wet filament winding, Anders Holmberg, Hitachi energy
12:40	Results of survey about glass fiber residue of general public, Liga Biezina, Valmiera municipality
13:10	Lunch break
14:00	Recycling of fibre composites, Anders Sjögren, Department of Design Sciences, Lund University
14:30	Managing end-of-service composite structures – challenges and case studies with focus on repurposing, Alann Andre, Research Institutes of Sweden
15:00	Composite Recycling in Finland, Pietikainen Pirjo, Finnish Plastics Industries Federation
15:30	Waste management policies at EU level, European Waste Management association
16:00	Closing remarks
16:10 – 17:30	Farewall coffee break, networking,

ON-SITE IN RIGA, LATVIA

ONLINE

REGISTER NOW

Final conference

Exploring full cycle circular economy for the glass fiber industry

We have CAPI in the same room – let’s make the change happen!